Pajaro Valley
Water Management Agency

PRESERVING AND PROTECTING
THE VALLEY'S WATER RESOURCES

Watsonville Slough System Managed Aquifer Recharge and Recovery Projects

EIR Scoping Meeting

June 12, 2019

Presenters and Other Team Members

PV Water Staff

- ***Brian Lockwood, Marcus Mendiola***

Carollo Engineers

- ***Paul Friedlander***

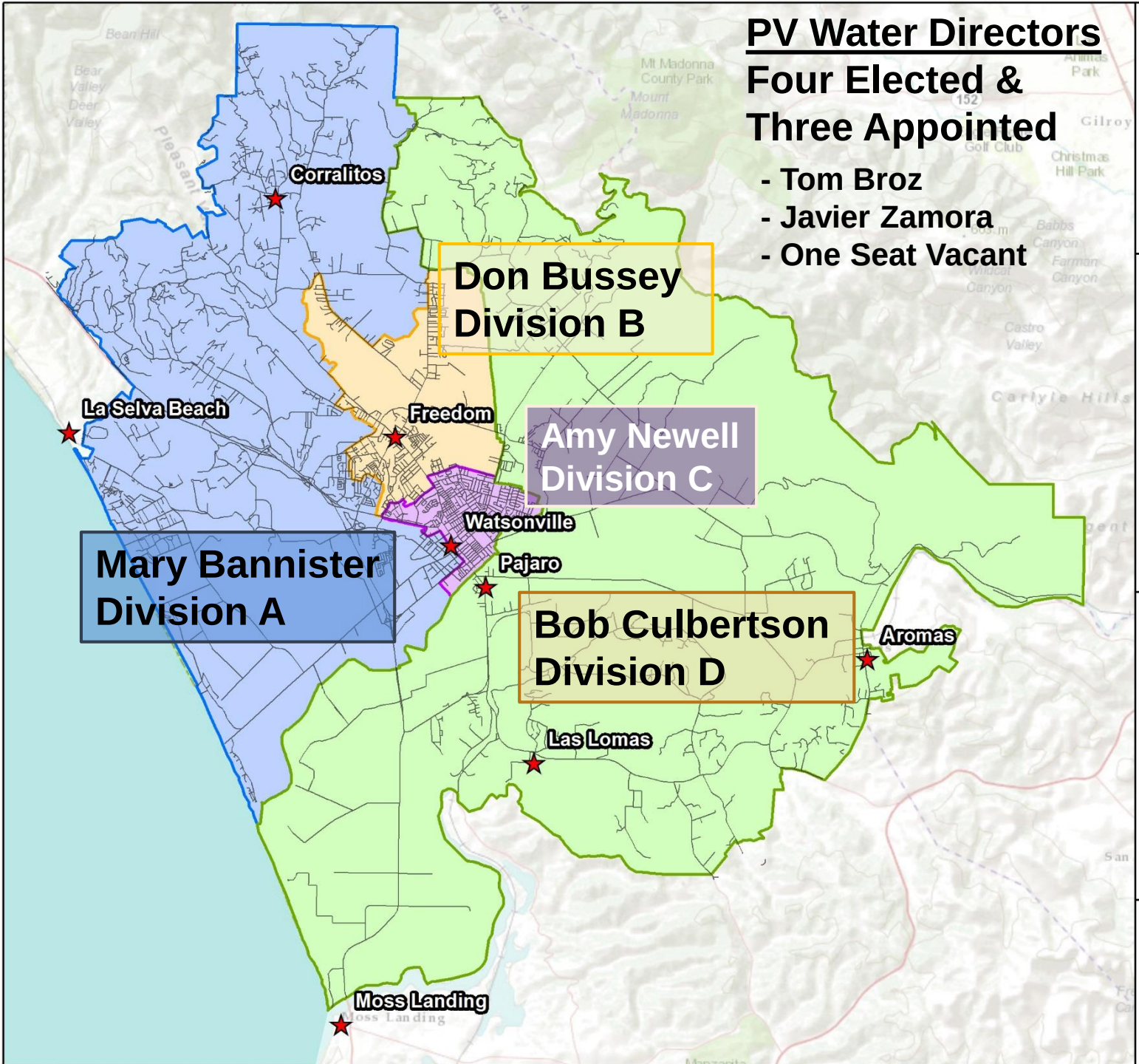
ESA

- ***Jim O'Toole, Alena Maudru***

Katz & Associates

- ***Maureen Barry, Natalia Hentschel***

PV Water Directors



Electoral Divisions

Explanation

- Cities & Towns
- Streets
- Division A
- Division B
- Division C
- Division D

N
W E
S

0 1 2 4

Miles

Pajaro Valley
Water Management Agency

Division Boundaries 1-15-2013 bs

Key Meeting Details

- Sign in
- Meeting Materials
- Written comments due by 5:00 pm on July 1, 2019
  - *Spanish and English accepted*
- Submit written comments by comment card, mail or email:

Brian Lockwood, General Manager
Pajaro Valley Water Management Agency
36 Brennan Street
Watsonville, CA 95076
Email: eir@pvwater.org

Meeting Purpose

- Hear your comments on scope, focus of environmental review
  - *Issues you would like to see addressed in the EIR*
- Community and Agency Input on:
  - *Environmental setting (existing conditions in area of Projects)*
  - *Environmental effects (agriculture, hydrology, biological resources, etc.)*
  - *Methods of assessment*
  - *Potential mitigation measures to reduce environmental effects*
  - *Potential alternatives to the Proposed Project*

Agenda

- Introductions
- Key Meeting Details
- Proposed Project Overview
- Environmental Review Process
- Environmental Topics
- Comments and Questions

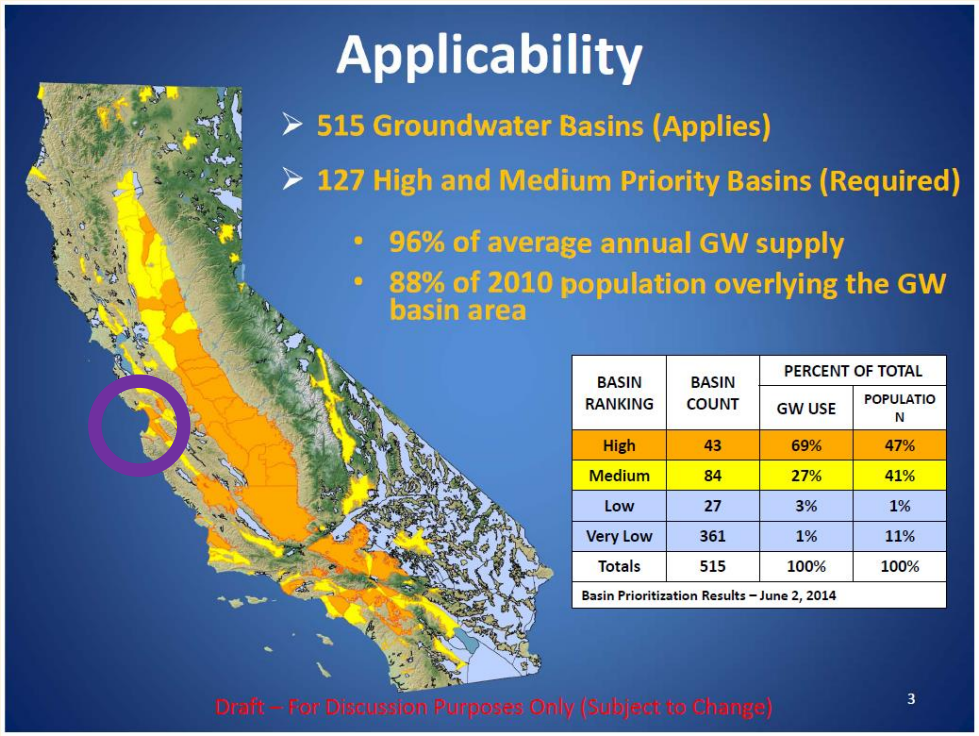
Overview of Watsonville Slough System Managed Aquifer Recharge and Recovery Projects

Overview

- Sustainable Groundwater Management Act
- Basin Management Plan Update
- Proposed Watsonville Slough System Managed Aquifer Recharge and Recovery Projects
  - Purpose
  - Project Components
  - Operations
  - Schedule

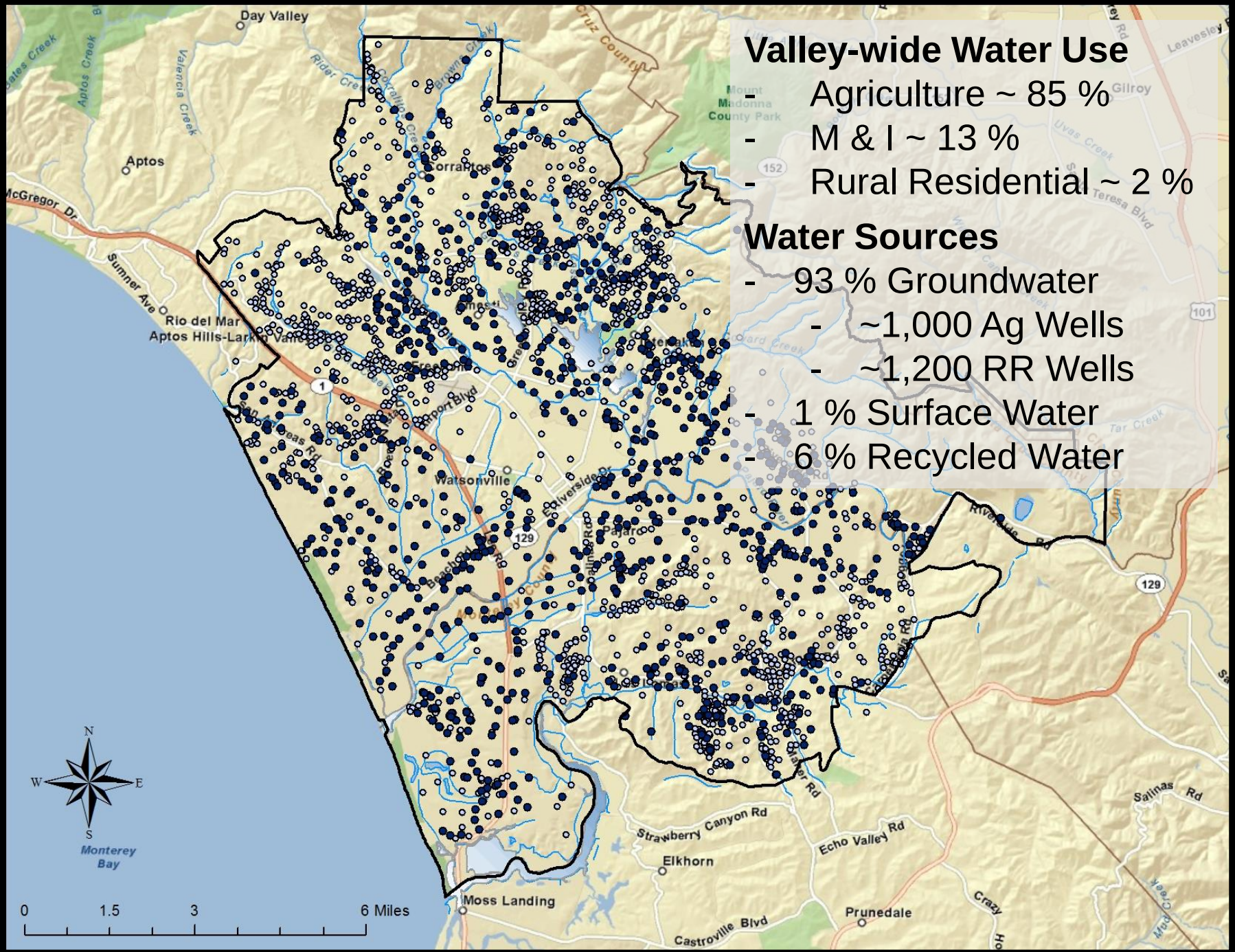
A Need To Achieve Sustainability

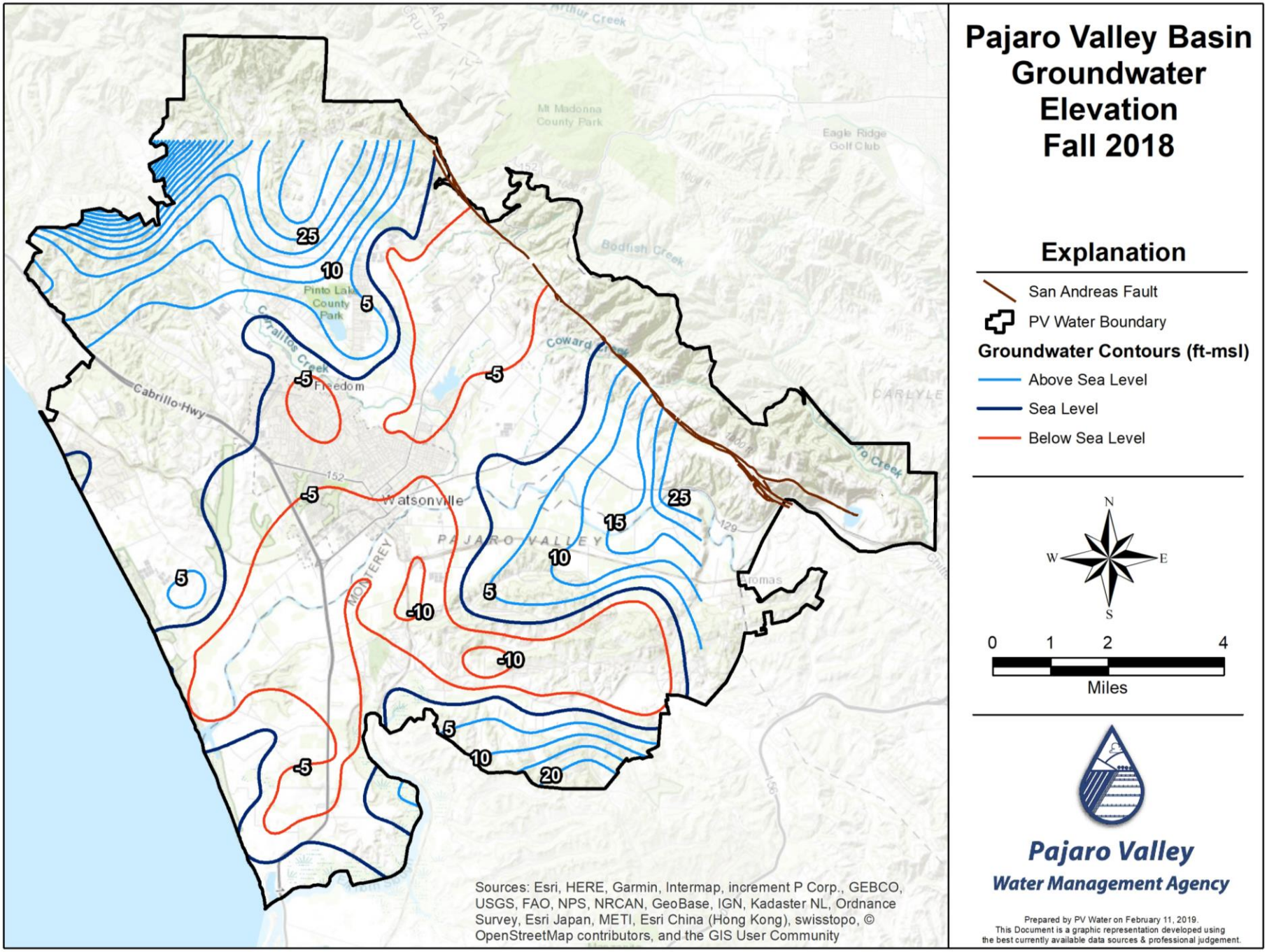
- The Sustainable Groundwater Management Act (September 2014) requires that critically overdrafted groundwater basins, such as the Pajaro Valley, be brought into balance by 2040.
- If not, the State will intervene and may impose pumping restrictions.

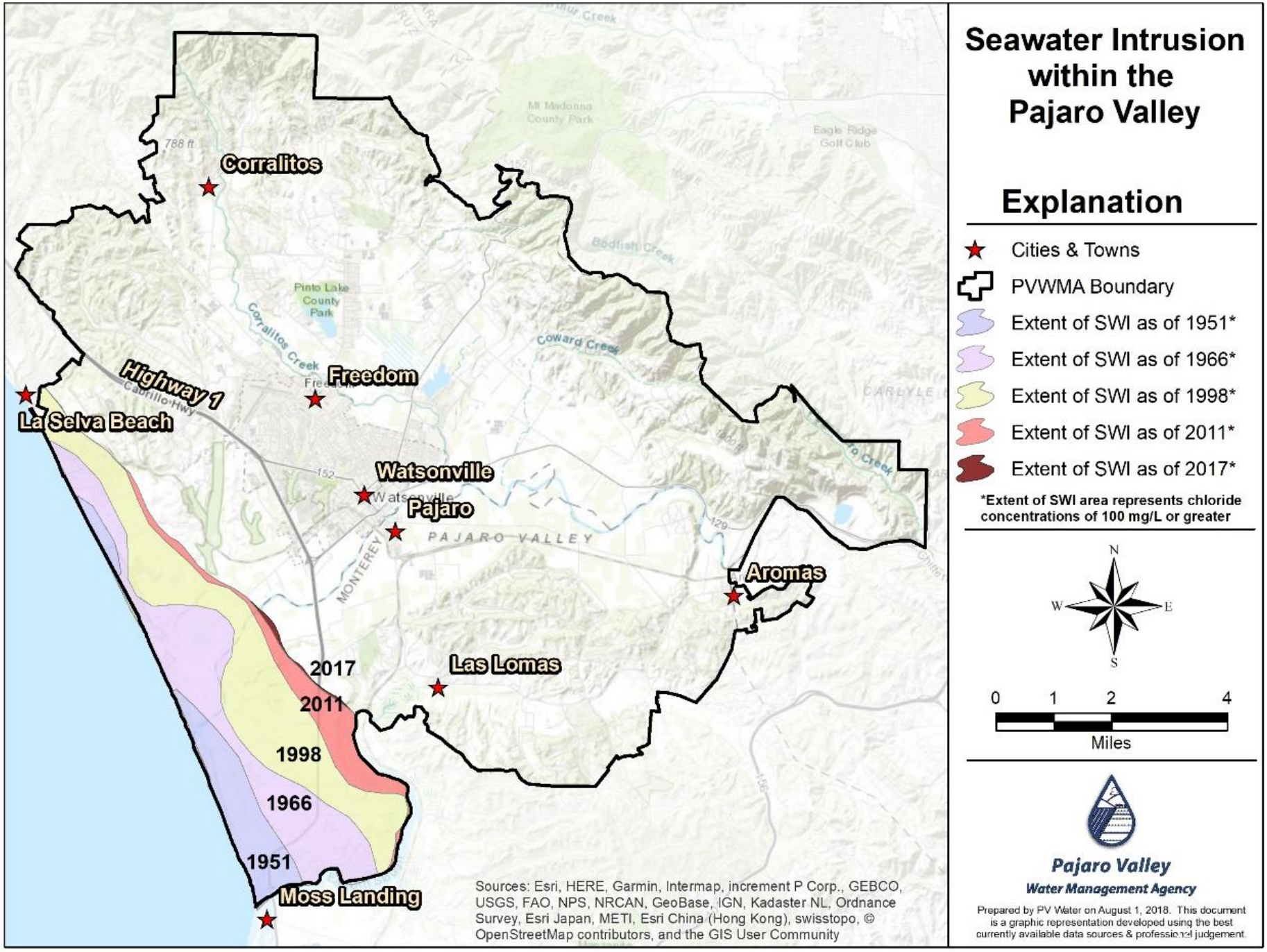


BASIN RANKING	BASIN COUNT	PERCENT OF TOTAL	
		GW USE	POPULATION
High	43	69%	47%
Medium	84	27%	41%
Low	27	3%	1%
Very Low	361	1%	11%
Totals	515	100%	100%

Basin Prioritization Results – June 2, 2014


Valley-wide Water Use
- Agriculture ~ 85 %
- M & I ~ 13 %
- Rural Residential ~ 2 %
Water Sources
- 93 % Groundwater
  - ~1,000 Ag Wells
  - ~1,200 RR Wells
- 1 % Surface Water
- 6 % Recycled Water
Day Valley
Aptos
Rio del Mar
Aptos Hills-Larkin Valley
Watsonville
Freedom
Corralitos
Gilroy
Mount Madonna County Park
Uvas Creek
Strawberry Canyon Rd
Elkhorn
Moss Landing
Prunedale
Echo Valley Rd
Salinas Rd
Castroville Blvd
Monterey Bay
N
W
E
S
0
1.5
3
6 Miles


Pajaro Valley Basin Groundwater Elevation Fall 2018
Explanation
San Andreas Fault
PV Water Boundary
Groundwater Contours (ft-msl)
Above Sea Level
Sea Level
Below Sea Level
N
W
E
S
0 1 2 4
Miles
Pajaro Valley
Water Management Agency
Prepared by PV Water on February 11, 2019.
This Document is a graphic representation developed using the best currently available data sources & professional judgement.
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
Watsonville
Freedom
Pinto Lake County Park
Mt Madonna County Park
Eagle Ridge Golf Club
Bodfish Creek
Coward Creek
Corralitos Creek
Cabrillo Hwy
PAJARO VALLEY
MONTEREY
CARLYLE
25
10
5
-5
-5
-5
25
15
10
5
-10
-10
5
10
20
-5


Seawater Intrusion within the Pajaro Valley
Explanation
Cities & Towns
PVWMA Boundary
Extent of SWI as of 1951*
Extent of SWI as of 1966*
Extent of SWI as of 1998*
Extent of SWI as of 2011*
Extent of SWI as of 2017*
*Extent of SWI area represents chloride concentrations of 100 mg/L or greater
N
W
E
S
0 1 2 4
Miles
Corralitos
Freedom
La Selva Beach
Highway 1
Watsonville
Pajaro
PAJARO VALLEY
Aromas
Las Lomas
Moss Landing
2017
2011
1998
1966
1951
Mt Madonna County Park
Eagle Ridge Golf Club
Pinto Lake County Park
Corralitos Creek
Bodfish Creek
Coward Creek
MONTEREY
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
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Water Management Agency
Prepared by PV Water on August 1, 2018. This document is a graphic representation developed using the best currently available data sources & professional judgement.

A few notes for context…

- These are ***Proposed Projects*** that were included at a program level with 5 other proposed projects in the Basin Management Plan Update (BMP).

- The BMP was developed through a public process by a 21 member stakeholder committee that met for over two years, and it was recommended for implementation by the Board of Directors.

A few notes context (cont.)

- The PV Water Board of Directors has not taken any formal action with respect to these proposed Projects except to direct staff to proceed with the CEQA process and file a water-right application.

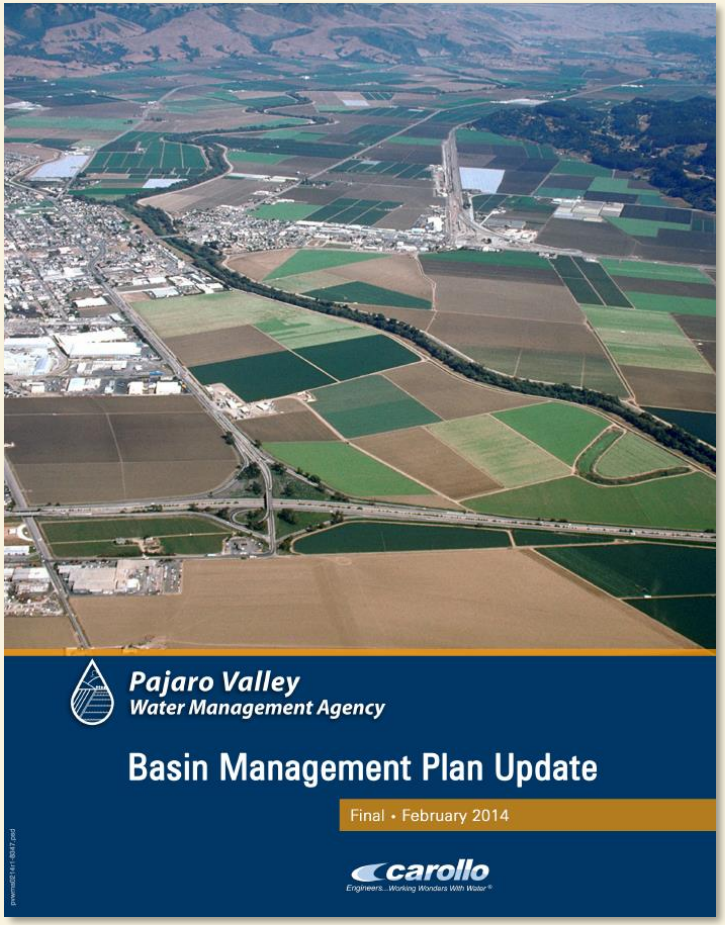
- *Environmental* and *Fiscal* issues need to be analyzed by staff and experts and discussed at the Board level, with input from the public and key stakeholders before PV Water can make any final decisions regarding moving forward with the proposed Projects.

Community Input is Critical

- Community input has been and remains important to the PV Water Board and staff
- BMP Update Development
  - 2010 – 2012: BMP Stakeholder Committee Meetings
  - 2012 – 2014: CEQA Process, Programmatic EIR
- Community Meetings
  - July 10, 2017, Open House & Community Meeting
- Regularly scheduled Board and Committee Meetings
- Staff attendance at Stakeholder meetings
- Annual Reports, Newsletters, Social Media, etc.

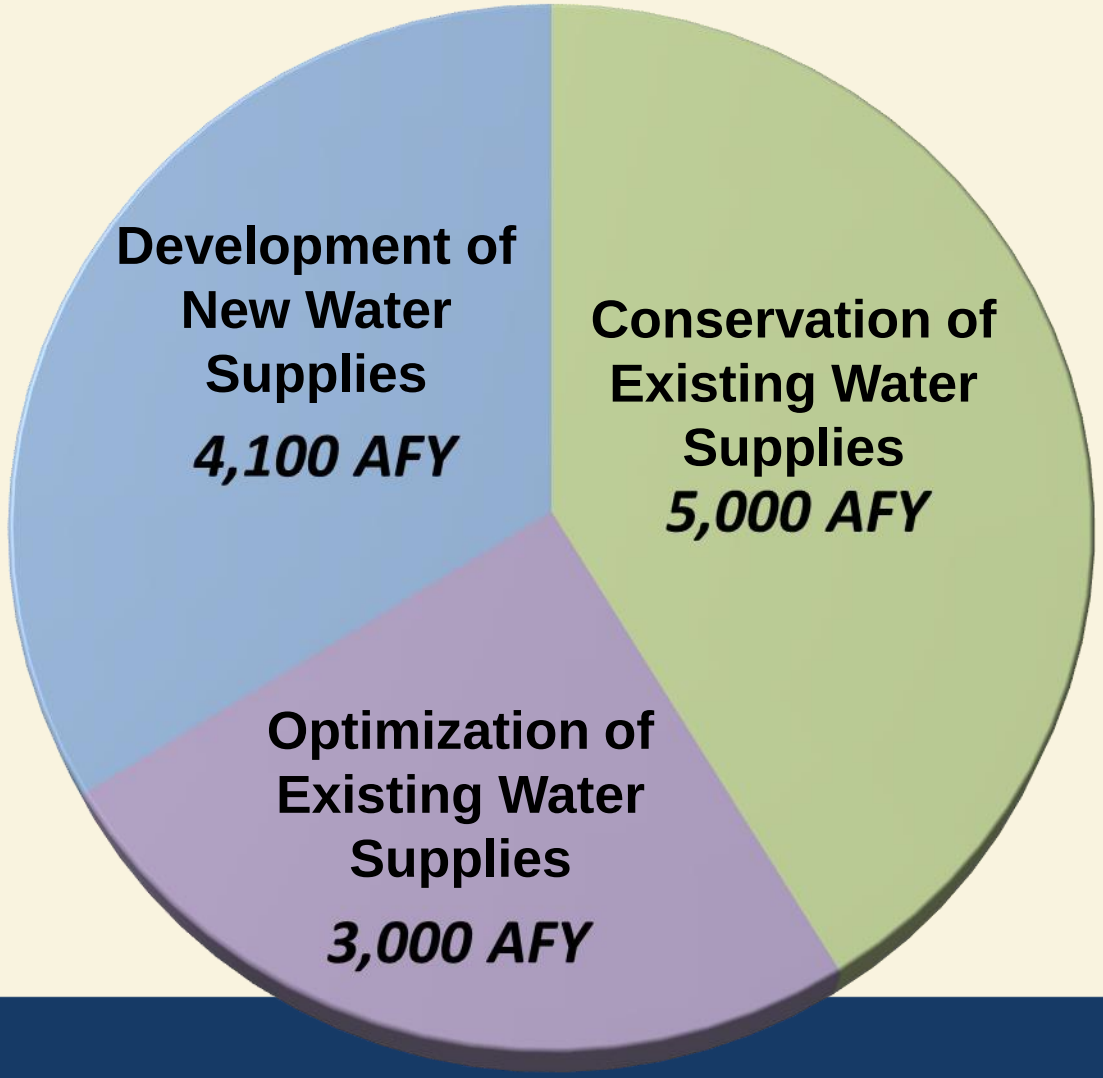
Basin Management Plan Update

- 21 Member Stakeholder Committee
  - Investigated all practical options at the time
- 44 Potential Solutions Discussed
  - 7 Projects & Programs Recommended
- Multi-year, Public Process
  - > 1,500 person hours & 23 meetings



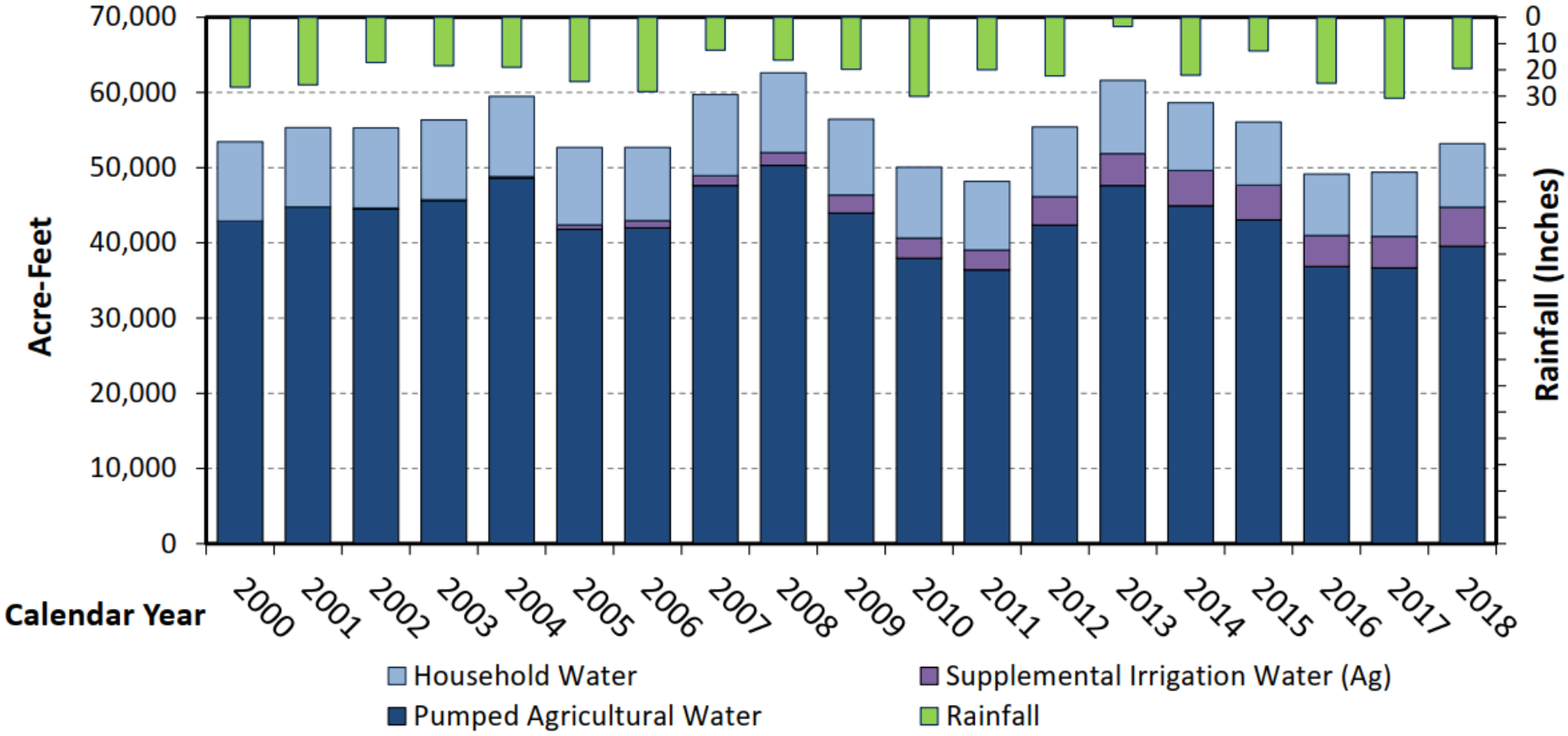
Basin Management Plan Update

contains three primary components to achieve 12,100 AFY



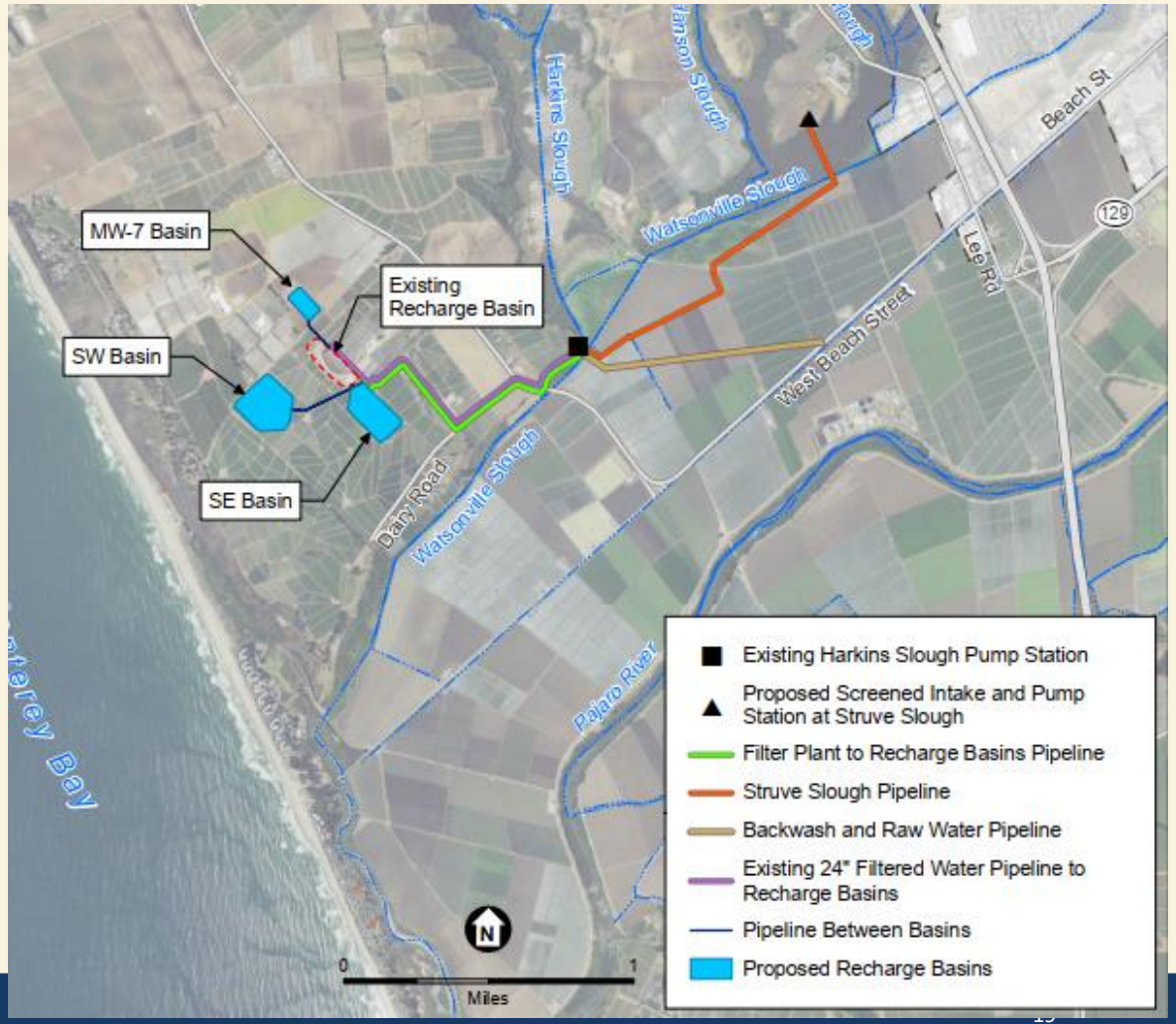
AFY – acre-feet per year

Water Use and Precipitation Trends
Pajaro Valley 2000 – 2018

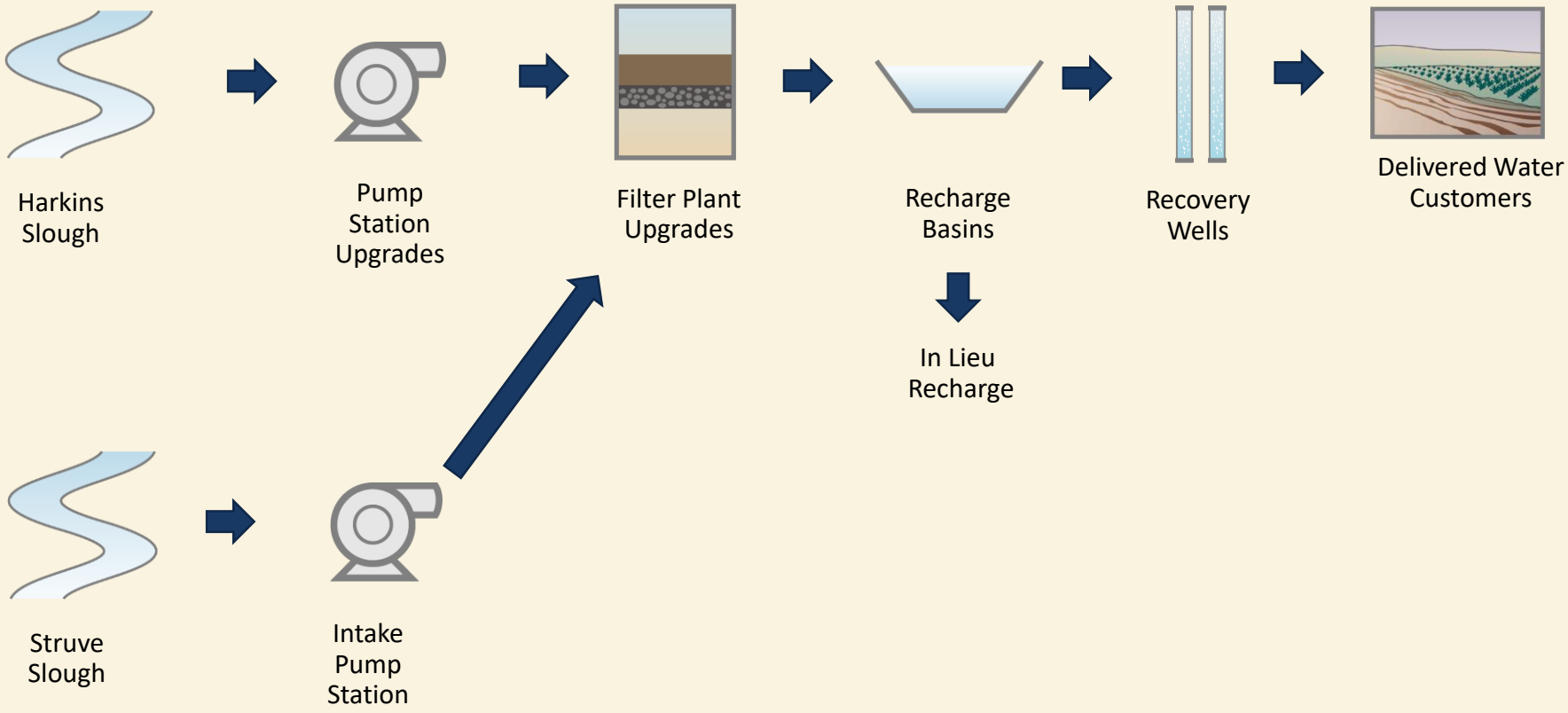


Watsonville Slough System Managed Aquifer Recharge and Recovery Projects

- Harkins Slough Facilities Upgrades Project
- Struve Slough Project
- Goals:
  - Diversion, recharge & recovery of up to 4,000 AFY



Slough Projects Schematic

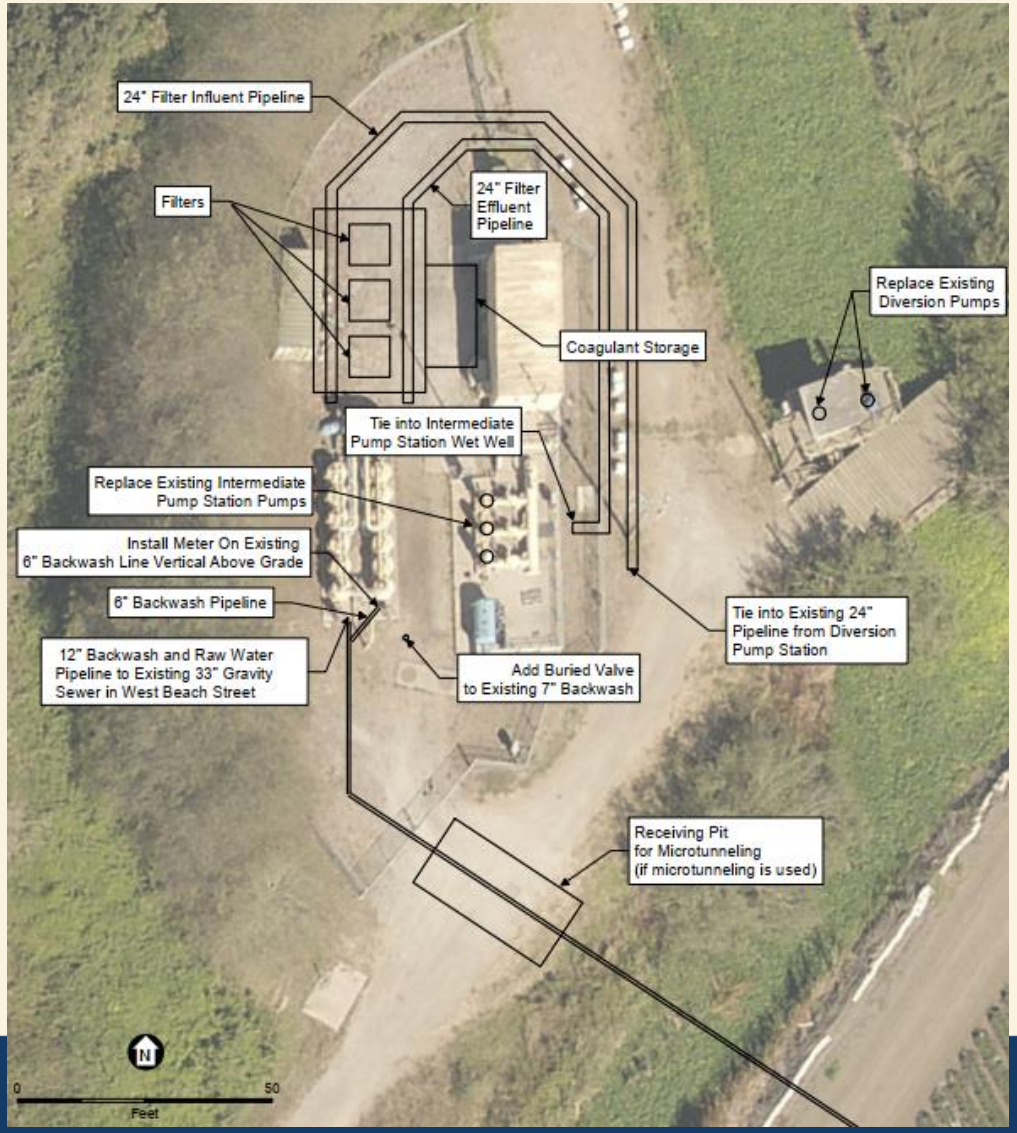


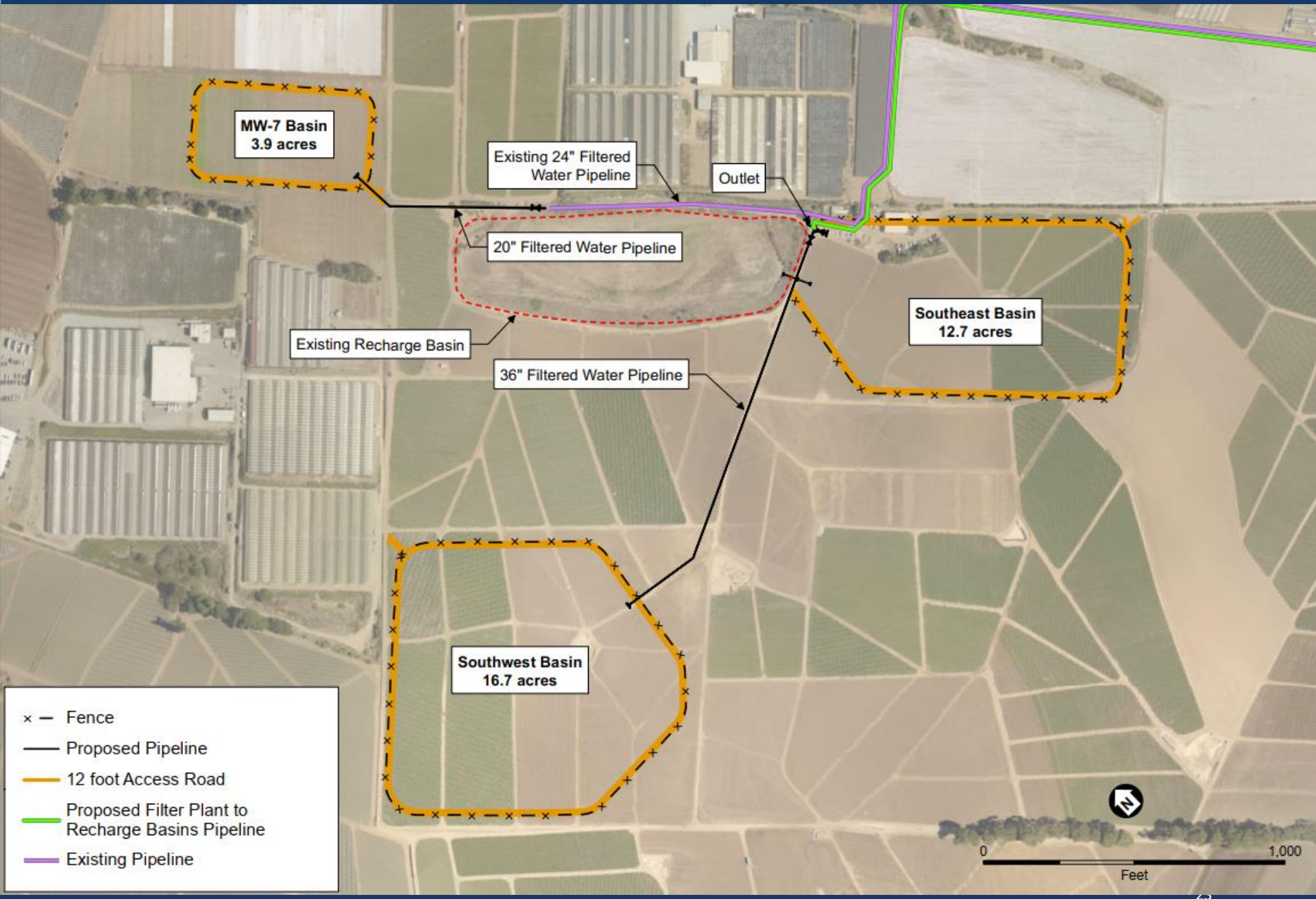
Harkins Slough Facilities Upgrades Project

- PV Water facilities constructed in 2002
- Water Right Permit: up to 2,000 AFY
- Lower than expected recharge and recovery rates

Harkins Slough Facilities Upgrade Project

- Upgrades to existing facilities
  - Add filters, coagulation
  - Replace pumps
  - Modify intake
- Southwest and Southeast recharge basins, recovery wells
- Pipelines



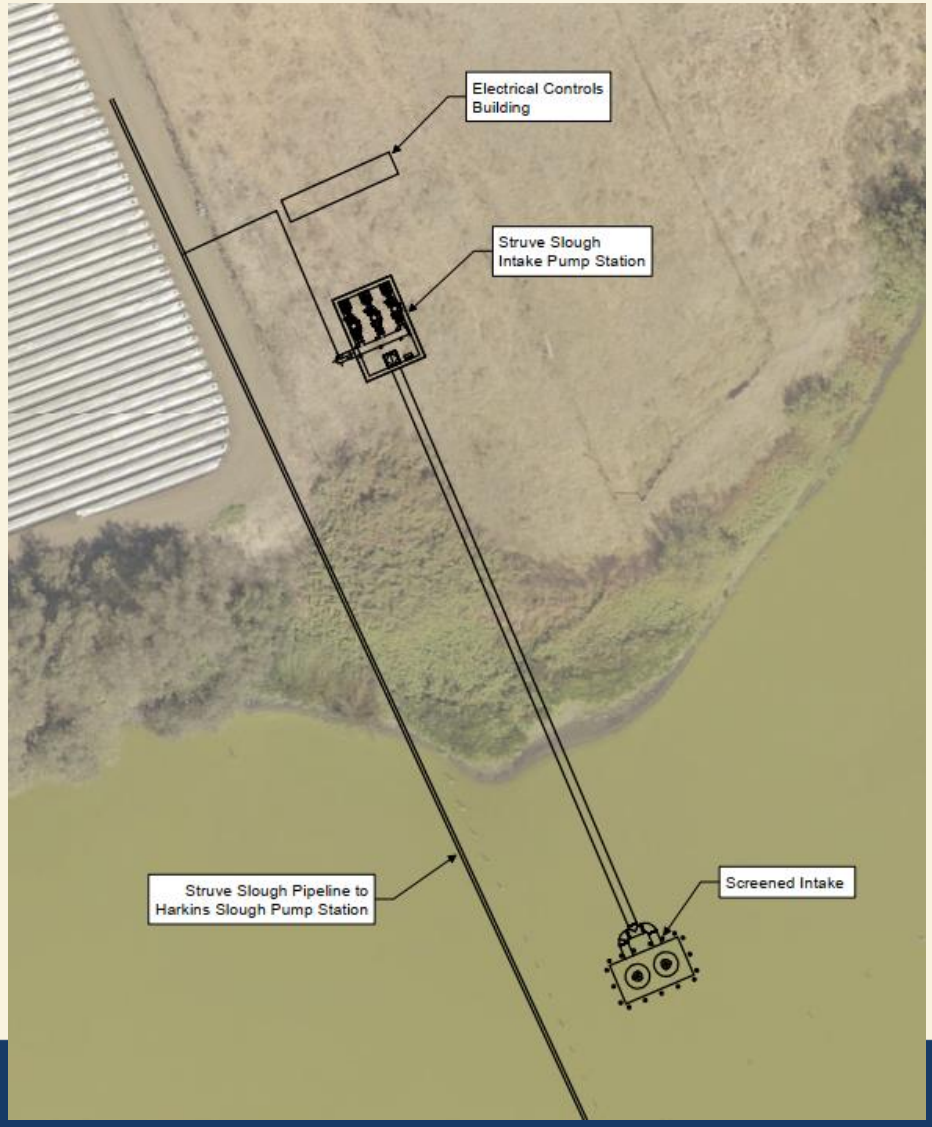

MW-7 Basin
3.9 acres
Existing 24" Filtered
Water Pipeline
Outlet
20" Filtered Water Pipeline
Existing Recharge Basin
36" Filtered Water Pipeline
Southeast Basin
12.7 acres
Southwest Basin
16.7 acres
Fence
Proposed Pipeline
12 foot Access Road
Proposed Filter Plant to
Recharge Basins Pipeline
Existing Pipeline
N
0
1,000
Feet

Struve Slough Project

- New water right permit
- Point of diversion: Struve Slough

Struve Slough Project

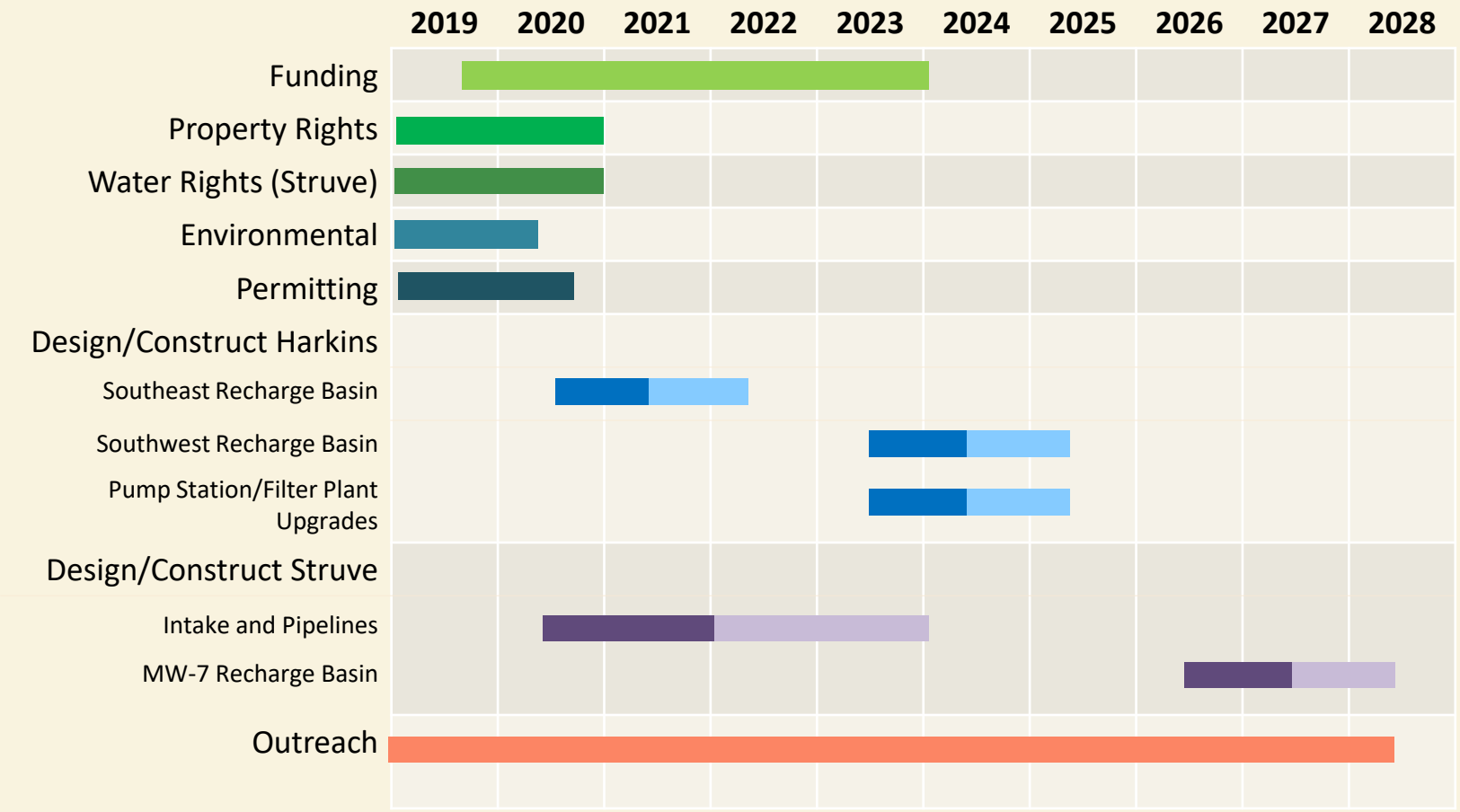
- Screened intake
- Pump station
- Monitoring Well #7 recharge basin, recovery wells
- Pipelines



Proposed Operations and Maintenance: Both Projects

- Continue diversion, filtration, recharge, recovery, distribution of water from Harkins Slough
- Diversion, filtration, recharge, recovery, distribution of water from Struve Slough
- Operation and maintenance of intake, pump stations, filter plant, pipelines, recharge basins, recovery wells

Implementation Schedule

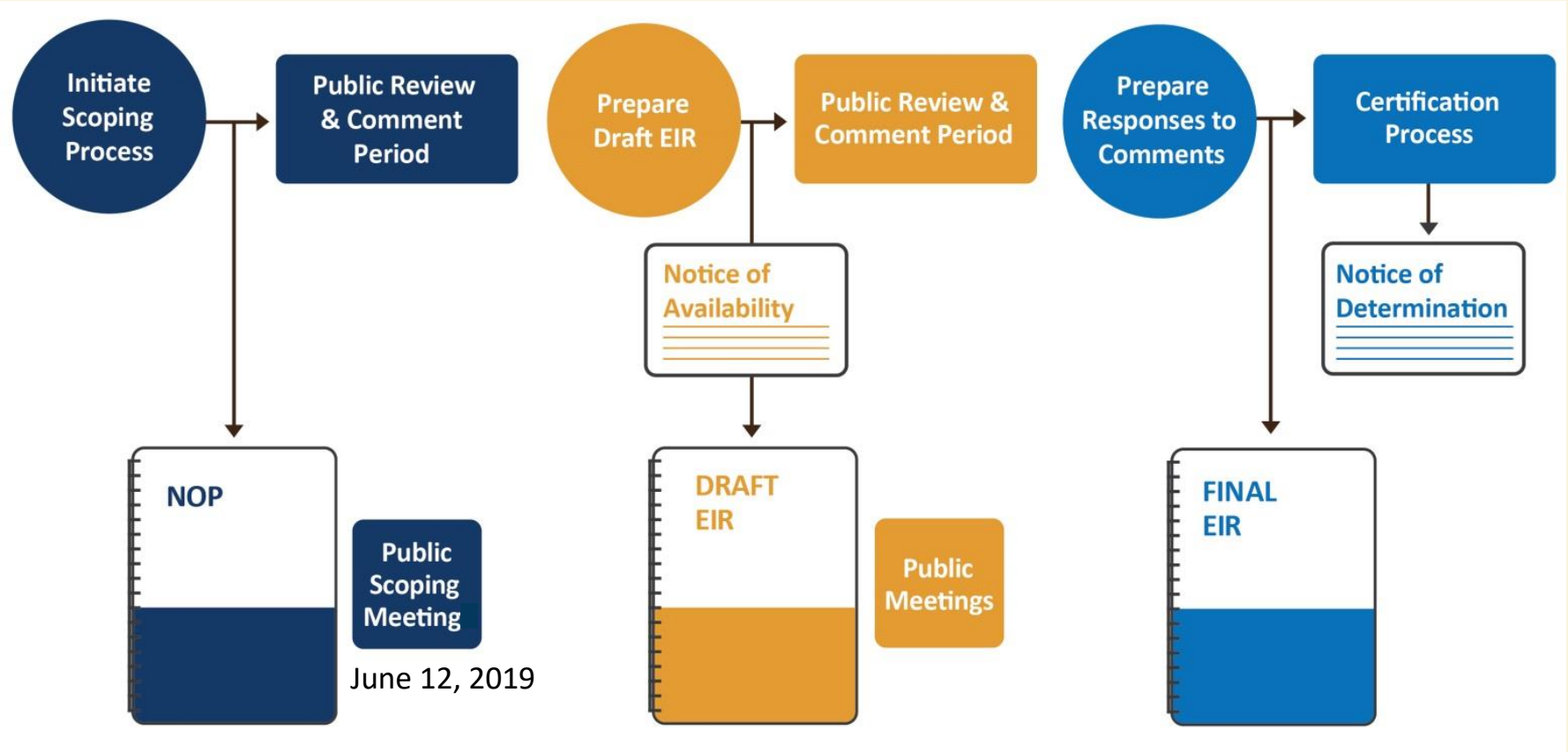


Environmental Review Process

California Environmental Quality Act

- Encourage agencies to minimize impacts of projects on the environment
- Facilitate public involvement in project planning
- CEQA Roles and Responsibilities
  - Lead Agency – PV Water
  - Other Agencies
    - *National Marine Fisheries Service, US Fish and Wildlife Service, State Water Resources Control Board, Regional Water Quality Control Board, CA Department of Fish & Wildlife, Santa Cruz County, etc*
  - Office of Planning and Research and State Clearinghouse
  - The Public

Environmental Impact Report Process



Relation to BMP Update Program EIR

BMP Update PEIR

- Analyzed 7 BMP Update projects including slough projects
- Level of Analysis: General
- Identified 16 significant environmental impacts for the Slough Projects
- Identified 33 mitigation measures to reduce impacts of the Slough Projects
- Mitigation Measures adopted by PV Water Board of Directors

Slough Projects EIR

- Focus: Harkins Slough and Struve Slough Projects*
- Other BMP Update projects considered in cumulative impacts
- Level of Analysis: more detailed, based on current design, construction, operations information
- Adopted mitigation measures now part of the Projects

* The Struve Slough Project was called the Watsonville Slough with Recharge Basins Project in the BMP Update PEIR.

EIR Content

- Executive Summary
- Project Description
  - Purpose and objectives, design, construction and operation of Project Components; Approvals
- Environmental Setting
- Environmental Impacts
- Ways to Reduce Significant Impacts
  - Mitigation Measures
  - Alternatives

Issues to be Investigated in the EIR

- Land Use and Agricultural Resources
- Surface Water, Groundwater, and Water Quality
- Biological Resources
- Air Quality and Greenhouse Gases
- Geology and Soils
- Hazards and Hazardous Materials
- Noise
- Transportation and Traffic
- Cultural Resources
- Tribal Cultural Resources
- Energy
- Utilities
- Public Services
- Recreation
- Aesthetic Resources
- Cumulative Impacts
- Alternatives

Comments

- Notice of Preparation (NOP) available online: **www.pvwater.org/bmp-update**
- Written comments accepted through **5:00 pm, July 1, 2019**
- Submit written comments by comment card, mail or email:

Brian Lockwood, General Manager

Pajaro Valley Water Management Agency

36 Brennan Street

Watsonville, CA 95076

Email: eir@pvwater.org

Questions and Comments

Additional Slides